

Urban District Council.

MEDICAL OFFICER'S

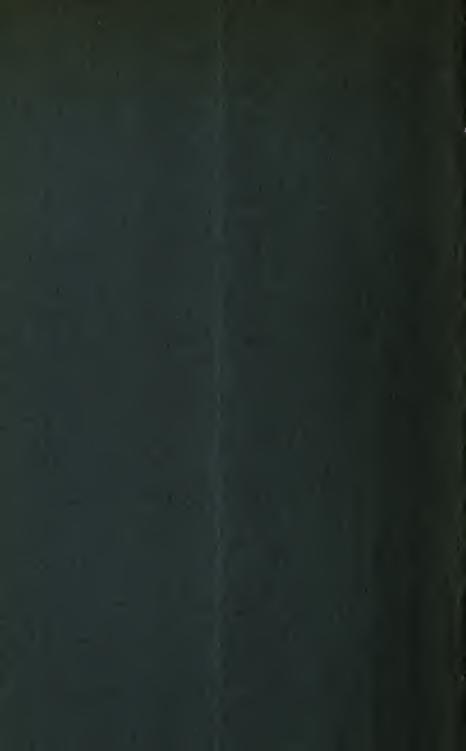
# ANNUAL REPORT

CARO

For the Year 1894.

ABERTILI ... :

THE LEW MY WE BY MAYLINGS, " COURT WALES GAZITTE " OFFICE.



#### ABERCARN

## Urban District Council.

#### LIST OF MEMBERS.

NORTH WARD.

DANIEL MORGAN WILLIAMS. PETER WILSON RAFFAN.
ROBERT PARDY.

SOUTH WARD.

SAMUEL ARTHUR MOSES. EDWARD JOHN DART. WILLIAM SHIRRISS MACKAY.

EAST WARD.

JOHN GREEN. GEORGE JONES. WILLIAM ROWLAND.

WEST WARD.

DAVID BOWEN. WILLIAM THOMAS. ERNEST BOOTH.

CENTRAL WARD.

EVAN PHILLIPS. WILLIAM PRICE. WILLIAM JONES.

#### OFFICERS.

Surveyor and Inspector: GEORGE STEVENS.

Medical Officer:

W. E. JAMES.

Clerk:

T. S. EDWARDS.

Collector:

W. D. DAVIES.

Treasurer:

P. M. GREENHAM, Capital and Counties Bank, Brynmawr.

## INDEX TO CONTENTS.

| Area                       |      |   |  |    |  |     | 3     |
|----------------------------|------|---|--|----|--|-----|-------|
| Vital Statistics           |      |   |  |    |  | . 3 | to 5  |
| Infectious Diseases        |      |   |  |    |  | 5   | to 10 |
| Respiratory Diseases .     |      |   |  |    |  | IC  | , 11  |
| Scavenging, Refuse Disposa | l    |   |  |    |  | II  | to 13 |
| Slop Drainage, Sewerage    |      |   |  | ١. |  | 13  | to 18 |
| Main Sewer for Western Val | lley | S |  |    |  | I   | 8, 19 |
| Water Supply               |      |   |  |    |  |     | 20    |
| Slaughter Houses           |      |   |  |    |  | 2   | 0, 21 |
| Dairies, Cowsheds, &c      |      |   |  |    |  |     | 2 I   |
| Isolation, Disinfection .  |      |   |  |    |  |     | 2 I   |
| Acts, &c., in force .      |      |   |  |    |  |     | 22    |
| Recommendations            |      |   |  |    |  |     | 2.2   |

## MEDICAL OFFICER'S ANNUAL REPORT

TO THE

## URBAN DISTRICT COUNCIL OF ABERCARN.

I have the honour to present to you my Report on the Sanitary History of the year 1894. I have the pleasant duty on the present occasion to give a more favourable record of the public health than I could last year. The total number of deaths from all causes is smaller by thirty-two, and there is a considerable reduction of the general death-rate; but there is only a difference of nine between the deaths of infants under one year; and the zymotic death-rate is the same as last year (1893).

## AREA:

9,938 acres.

### VITAL STATISTICS.

| Population (Census taken by Local Board    |        |
|--|--------|
| in 1893)                                   | 11,500 |
| POPULATION estimated to the middle of 1894 |        |
| 000 1 (1 ' 1 1 - 0 1 ( 1 )                 |        |

223 deaths registered (128 males; 95 females), giving a death-rato of 18.8 per thousand per annum.

| in 1093, our rate   | ••••    | ••••   | •••• | 22.1 |
|---------------------|---------|--------|------|------|
| ,, 1892, ,,         |         |        | •••• | 20°I |
| And the general dea | th-rate | of Eng | land |      |
| and Wales in        | т803    |        |      | TO:T |

542 births, 16 less than 1893 (302 males; 240 females) were registered, giving a birth-rate of 45.7 per thousand per annum.

| In | 1893, our rat | e       | ••••   |      | 48.4 |
|----|---------------|---------|--------|------|------|
|    | England and   | Wales i | n 1893 | **** | 30.8 |

#### INFANTILE DEATH-RATE.

There were 99 deaths of infants under one year of age, giving a rate of 182 per thousand births.

| In 1893, our rate                 | ••••  |      |      | 193 |  |  |  |  |
|-----------------------------------|-------|------|------|-----|--|--|--|--|
|                                   |       |      |      | 176 |  |  |  |  |
| ,, England and Wal                | es in | 1893 |      | 159 |  |  |  |  |
| The causes of these deaths were:— |       |      |      |     |  |  |  |  |
| Bronchitis and Pneur              |       |      |      | 29  |  |  |  |  |
| Debility                          |       | •••• |      | 23  |  |  |  |  |
| Premature Birth                   | ••••  |      |      | 6   |  |  |  |  |
| Marasmus                          |       | •••• |      | 9   |  |  |  |  |
| Convulsions                       |       | •••• |      | 8   |  |  |  |  |
| Diarrhœa                          |       | •••• | •••• | 5   |  |  |  |  |
| Whooping Cough                    |       | •••• |      | 8   |  |  |  |  |
| Enteritis                         |       | •••• |      | 2   |  |  |  |  |
| General causes                    | ••••  | •••• |      | 9   |  |  |  |  |
|                                   |       |      |      |     |  |  |  |  |
| To                                | tal   |      |      | 99  |  |  |  |  |

53 out of the 99 deaths occurred from Respiratory Diseases, Marasmus, Diarrhæa, Enteritis, Whooping Cough. This rate of 182, though not so high as last year, points strongly to the fact of there being something radically wrong in the treatment and care of young infants in this district. It practically corresponds with the rate recorded in some of the large manufacturing towns in the North of England. There, women are employed in factories, &c., and so the high mortality may be partly accounted for; here, there is nothing of the kind.

Infant mortality is greatly influenced by insanitary surroundings, overcrowding, want of ventilation, food improperly stored or kept, improper feeding and exposure to cold and night air. I have drawn up a short pamphlet containing some simple hints on the "Feeding and Care of Infants." I would suggest that this be printed in the form of small bills, and that the Registrar of Births and Deaths be requested to supply each person who registers the birth of a child with a copy.

The Sanitary Committee of the County Council, in their Report for 1893, suggests that popular lectures should be arranged in the more populous districts on the proper care and feeding of infants and young children. Such lectures, if they also included directions on the treatment and care of infants and children suffering from such infectious diseases as Measles and Whooping Cough, would be of the greatest service, and I would ask the Council to consider the advisability of petitioning the County Council to arrange such a course.

145 deaths, or two-thirds of the whole number of deaths (223), that occurred in your district were of children under five years of age.

Over 60 years of age there were 28 deaths.

Between 60 and 70 years there were 10 deaths.

Over 80 years (82 years) there was 1 death.

Inquests, 10. Accidents, 7. Other causes, 3.

#### INFECTIOUS DISEASES.

| Deaths from   | n Zyn   | notic I | Disease | s :—     |       |     |
|---------------|---------|---------|---------|----------|-------|-----|
| Small Po      | x       | ••••    | ••••    | ••••     |       | 0   |
| Scarlatina    |         | ••••    | ••••    | ••••     | ••••  | I   |
| Diphtheri     |         | ••••    | ••••    | ••••     |       | I   |
| Measles       |         | ••••    | ••••    | ••••     | ••••  | 5   |
| Whooping      |         | gh      | • •••   | ••••     |       | 17  |
| Enteric F     |         | ••••    | ••••    | ••••     | ••••  | 5   |
| Diarrhœa      | ••••    | ••••    | ••••    | ••••     | ••••  | 5   |
|               |         |         |         |          |       |     |
|               |         |         |         |          |       | 34  |
| giving a Zymo | otic De | eath-ra | te of 2 | ·8 per t | housa | nd. |
| In 1893, d    | our rat | e was   | ••••    | •••      |       | 2.8 |
| In Englai     | nd and  | l Wale  |         |          | 2     | 2.4 |
| CASES         | OF      |         | CTIO    |          | ISEA  | SES |

71 cases notified. 262 in 1893.

Newbridge District. Trecelyn, Crumlin, Kendon, Cwmdows, &c. 47 cases,

(39 of these in Trecelyn). În 1893 in Newbridge, 193.

ABERCARN DISTRICT. Chapel-of-Ease, West End, The Village, Cwmcarn. 24 cases.

In Abercarn, 69.

#### SCARLATINA OR SCARLET FEVER.

23 cases.

Crosspenmaen, I case, I death. New Pits, 5 cases. Cwmcarn, I case.

1 death.

Abercarn, 12 cases. Newbridge, 2 cases, Chapel-of-Ease, 2 cases.

### ENTERIC OR TYPHOID FEVER.

43 cases. 5 deaths.

In 1893, 68 cases, 2 deaths.

Trecelyn, 29 cases, 3 deaths. Cwmcarn, 4 cases. Spiteful Row, I case. Crumlin, 1 case.

Abercarn, 3 cases, 1 death. Newbridge, 1 case. Cwmdows, 2 cases. Pentwynmawr, 2 cases.

#### PUERPERAL FEVER.

2 cases.

No deaths.

Both these cases occurred in Trecelyn.

#### ERYSIPELAS.

2 cases.

No deaths.

Trecelyn, I case.

Cwmcarn, I case.

## DIPTHERIA.

1 case, Crumlin, fatal.

#### SCARLATINA.

The District was fairly free from this disease, only 23 cases being notified, compared with 173 cases in 1893. The epidemic that had raged during 1892-3 practically died out in the first quarter of the year.

An outbreak occurred in the Ranks, Abercarn, in February, and showed in the most forcible manner how tenaciously the Scarlatina virus retains its vitality for long periods under favourable conditions, and can be lodged in the crevices and floors of rooms and carried in garments. In January, 1893, an infant was attacked with Scarlatina in a certain house in the Ranks, Abercarn. In February, 1894, the disease broke out afresh in the same house, two children and one adult being attacked, and it was found that the child who was first taken ill in the second outbreak had worn a small jacket that had also been used by the child attacked in 1893; the jacket thus retaining the infection from January, 1893, to February, 1894.

This case especially shows how important it is that at the termination of a case of Infectious Disease the clothing and bedding should be thoroughly disinfected by heat.

#### WHOOPING COUGH.

Whooping Cough was troublesome, more or less, the whole of the year, but the disease showed a remarkable departure from the usual seasonable mortality.

In England and Wales the maximum mortality is found to occur in the Spring (March and April) and the minimum in the Autumn. In your District the greatest mortality occurred in the Autumn (13 deaths) and the least in the Spring (4 deaths).

Seventeen deaths, in all, occurred. Of them 8 were under one year, and the remainder over. The 17 deaths occurred in children under five years of age, and were mostly due to some acute lung complication, such as Bronchitis or Pneumonia. Whooping Cough is now the most most fatal disease of childhood, 96 per cent. of the deaths occurring under five years of age Together with its companion, Measles, it is thought very lightly of, children while suffering from the disease being allowed to mix freely and play with others, and being also sent to the churches and schools.

Whooping Cough is not a notifiable disease, so that, as a rule, the first intimation I have had is from the death returns; but owing to the insiduous onset of symptons and the absence of rash, I could hardly advise the Council to add it to the list of notifiable diseases, as the disease is rarely detected until after the infectious stage has been reached.

#### MEASLES.

Five deaths were registered—

Newbridge District .... 4. Abercarn .... 1.

The deaths were generally due to some pulmonary complication. The remarks upon Whooping Cough apply equally to Measles, 90 per cent. of the deaths occurring under five years of age. If the dangerous character of this disease was only better understood by parents, and isolation and disinfection carried out as far as possible, a considerable reduction both in the mortality and the number of cases should follow.

#### DIPHTHERIA.

Only one case (fatal) of this fell disease, which has attracted so much attention lately, occurred. The case was at Crumlin; the sanitary condition of the house was good, no suspicion attached to the milk supply, and the origin was quite obscure.

#### DIARRHŒA.

Five deaths registered, but **all** of infants under one year of age. Diarrhœa was not nearly so prevalent or fatal as in 1893, a fact due doubtless to the comparatively cool and wet summer.

#### PUERPERAL FEVER.

Two cases notified, both of them at **Trecelyn**. The usual preventive measures were saken.

#### ERYSIPELAS.

Two cases notified as against ten last year. A satisfactory diminution,

#### ENTERIC OR TYPHOID FEVER.

Enteric Fever at Trecelyn continued to give a good deal of trouble throughout the year. 29 cases were notified, and there were 3 deaths, giving a case mortality of 10 per cent. The cases were notified as follows:—

January, 4 cases. May, 2 cases. September, 4 cases. Feb'ry, 2 ,, June, 3 ,, October, 4 ,, March, 3 ,, July, I ,, November, I ,, April, I ,, August, 3 ,, December, 2 ,,

The cases thus averaged a little over two a month.

Seventeen houses were attacked, the cases averaging two to a house, the greatest number of cases that occurred in one house was five.

Fifteen males were attacked, and thirteen females; seven of the cases were under five years of age, and twenty-two over, the average age being sixteen years.

As I pointed out last year, no suspicion could be attached to the Milk Supply, and in 1894 the Water Supply was of better quality, and more abundant than the previous year.

I advised the Board to have the pails from infected houses removed nightly, but the work was carried out in a most unsatisfactory and careless manner, pails being left for nights without removal. In the course of removal, too, pail contents were often spilt on the back roads, between the houses. This, perhaps, was often unavoidable, but I need hardly point out the very great danger to the Public Health from such a proceeding, for the emanations from fresh enteric excreta are intensely infectious. Though the body of water in the Torlas Brook was strong, and it was flushed frequently, the condition was not satisfactory, though better than that of the previous years. So long as the slop and house waste water from the Trecelyn houses is allowed to run into the brook, it will remain a source of danger to Trecelyn, and be the means of starting

epidemics of typhoid fever and other dangerous diseases. It has been **proposed** to lay a sewer in the brook, and convey the slop water down to the river. This **work** should be carried out **without delay**.

The outbreak has now, I hope, almost subsided. (February, 1895).

The Epidemic has been most costly to

- (1) The Newport Union, for necessaries, meat, &c., and nursing for sick cases.
- (2) The Local Board, for disinfectants and extra scavenging.

All the cases were freely supplied with disinfectants (carbolic acid, lime, &c.), the majority of the houses fumigated with sulphur at the termination of a case, and then the house and closet, &c., white-limed.

Five cases occurred around Newbridge, but they were scattered, and there was nothing remarkable about them, the origin in most cases being obscure.

One case occurred at Crumlin in December. This man was a scavenger under the Board. He did no night scavenging, but collected house refuse, ashes, &c., and of course worked a good deal at the Refuse Depôt at Newbridge, where he probably contracted the disease.

In the Abercarn District there were only eight cases of Typhoid. These were generally found to be associated with such sanitary defects as untrapped drains, filth accumulations, &c.

In one case an old box gutter conveying house waste and surface water ran under the house.

## RESPIRATORY DISEASES.

#### BRONCHITIS—PNEUMONIA.

69 deaths, giving a rate of 5.8 per 1,000 per annum.

Of these deaths, 29 were under **one** year of age, and of the **total**, no less than **55** were of children under **five** years of age.

The greatest number of cases occurred in the first and last quarters of the year (in December 18 ).

During December a form of Catarrh, or perhaps "Influenza" was prevalent, principally attacking young children and leading to chest complications.

#### PHTHISIS.

13 deaths. Rate, 1.09 per 1,000.

#### OCCUPATIONS:

Colliers, 4. Saddler, 1. Tinman, 1. Various, 7.

#### INFLUENZA.

No deaths were registered as occurring directly from Influenza. It is certain, however, that cases of Influenza occurred throughout the year.

#### HEART DISEASE.

8 deaths. Rate, :8 per 1,000.

#### SCAVENGING.—REFUSE DISPOSAL.

SLOP DRAINAGE. SEWERAGE.

SCAVENGING (Removal of Ashes, House Refuse, and Night Soil).

This was carried out, as in the past two years, by Contractors. The work, in both the Newbridge and Abercarn Districts, was performed in a most unsatisfactory manner for the greater part of the year, complaints being innumerable and frequent. I was convinced, from my inspection of both parts of your District, that there was just cause for these complaints, house refuse being removed very irregularly, and pails neglected for a week or ten days, and when removed the work was done so carelessly that the contents were spilled, and serious and dangerous nuisances created, for in some instances the pails contained the excreta from Fever cases. Grave complaints were made to me of this in the Trecelyn District. But I find in some parts of your District that ashes and house waste

matters are thrown into the accommodation roads at the backs of the houses, and are allowed to accumulate there, instead of being placed out regularly in some suitable receptacle for removal by the scavengers. I would again repeat that the pails are often filled up with slop-water, and this renders it impossible for the scavengers to effect a cleanly removal.

Our pail system, as at present carried out, is uncleanly and insanitary.

Our pail closets, are, however, a great improvement on "middens" and "cesspits," and they have the advantage of extreme simplicity, and cannot be deranged by anything short of wilful destruction. The excreta, too, remains near the dwelling for a few days only, instead of putrifying for weeks, as in "middens," the weekly, or semi-weekly, visit of the scavengers ensuring a certain amount of cleanliness; but pails that receive excreta only are invariably offensive, however frequently changed. In the majority of towns that have adopted the pail system, covered pails are used, these being removed by the scavenger, and clean ones substituted. In some of these towns, the pails, before distribution, are packed with some de-odorent and absorbent material, such as compressed peat, fine ash, sawdust, or charcoal. In others, the pails are not packed, and the closets in use are either

(1) Dry Earth.(2) Ash Closets.

In earth closets a suitable loam has to be dried in kilns, sifted, and delivered for use.

In the ash, or cinder-sifting closet, the household ashes are thrown upon a grid at the back of the closet, and by a simple automatic arrangement are sifted, the fine ash falling upon the excreta, and the cinders finding their way to a separate chamber for further use as fuel. This system of closet has been tried in some parts of your District, but they have not been satisfactory, as the automatic arrangements became damaged, they were neglected, and not supplied with ashes.

The pail contents of your District are collected twice a week (at night-time) by the scavengers, and removed in Iron Tumbler Sewage Carts, but owing to the liquid nature of the pail contents, considerable leakage takes place from the carts during their journey along the roads to your Depôts at Newbridge and Chapel Bridge. This is, in itself, an extremely objectionable feature in our system, and has given rise to great complaints.

The refuse of the District is still finally deposited at Chapel Bridge and Newbridge. In my report for 1893, I complained that the night soil was treated improperly at the tips, not being at once carefully covered with gas lime and ash, and being thus left open to sun and rain, decomposing, and constituting a dangerous and offensive nuisance. For the last quarter of the year there has been an improvement at both Depôts in this respect.

At both sites the accumulations are large and increasing. At Chapel Bridge, refuse is only tipped on sufferance; there is no agreement with the Llanover Estate. At Newbridge, the land is certainly rented from the tenant of the Newbridge Farm, but if the Council were deprived of these two sites for tipping, the position would be most serious. It is well-known with what extreme difficulty suitable land for refuse disposal purposes was obtained when the Local Board was formed in 1892.

These tips of ashes, house refuse, and night soil are not only dangerous, containing as they do the specific germs of disease, so that in high winds and dry weather dust, organic particles, and microbes must be carried long distances, and tend to cause outbreaks of disease, but they are also unsightly and offensive.

I suggested last year that the most satisfactory method for getting rid of our refuse would be by means of Destructors.

#### SLOP DRAINAGE. SEWERAGE.

The slop and house waste water of the district all runs directly or indirectly into the river Ebbw and the

canal. We thus compare in some respects with Urban Districts above us, bordering on the Ebbw; but in the majority of cases they have laid sewers directly into the river, and all of their sewage (water closet, &c.) is thus conveyed, and there is no attempt at any dry or conservancy system such as ours; the whole of the sewage being taken by a water-carriage system directly into the river. It thus runs down into our District, and in times of low water, drought, &c., the bed of the Ebbw is exposed, and with the favourable temperature of the summer time, bacterial growth is stimulated, decomposition sets in, and fœtid gases laden with germs are given off. The river Ebbw, in its present condition, is an open sewer, and your District especially suffers from it.

It has been found by the Rivers Pollution Commissioners that slop water, containing as it does the refuse and drainage of slaughter-houses, cowsheds, and stables, street surface washings, &c., when added to house waste water (consisting of waste from kitchens—charged with decomposible organic matter and soap), and slop water, containing urine, soap, and the dirt from the surface of the body and from clothes, is quite as foul as that from "water-closeted" towns. The slop water, &c., is discharged into the river is thus very foul, and is too impure to be admitted without undergoing some purifying process.

The drainage between the New Inn and Cwmcarn requires alteration. At present the houses on the upper side of the main road drain into **cesspools**, the overflow of which runs into the canal, or the slop water is carried under the road and allowed to slowly trickle down into the canal, on its way decomposing and being most offensive to the public generally. A sewer should be laid to intercept all these small drains and carry the slop water away.

Our present system of refuse disposal and slop drainage is most unsatisfactory. In my Annual Report for 1893 I stated that Abercarn and Risca are now almost

completely joined by houses on both sides of the road, and if these two Boards took joint action, a complete water carriage system of sewerage could be schemed for both Districts. This was also proposed by one of the members of the Risca Board, and in consequence joint committees were formed and several meetings held.

I would now ask the District Council to consider the system at present carried out in the District. I do not think anyone can consider it satisfactory. There are open to the Council three courses—

- (1). To continue the dry or pail system;
- (2). Join Risca in a Sewerage Scheme;
- (3). Continue our pail system and urge on the formation of a **Main Sewer** for the Valley.
- (1). To carry out the pail system satisfactorily, there must be much more efficient scavenging, a semi-weekly removal being enforced. The work should be done by a staff of men under a foreman; the foreman to be engaged by and be personally responsible to the Council for the way in which the work is carried out.

The horses and carts could be supplied by contract as they are now.

The pail contents should be kept as dry as possible, and short notices left with each householder cautioning them against throwing slops into pails, and advising the use of a little sifted ash or dry earth.

In parts of the District as Trecelyn, the West End, and the Ranks, Abercarn, the open brick gutters at the backs of the houses, used as slop drains, should be done away with, and properly trapped and ventilated drains laid from each house, for it is generally found that the inhabitants of these houses do not pour their house waste water into the open gutter, for if they do the water probably stagnates and forms an objectionable nuisance in the gutter opposite the houses lower down. This alone causes a serious difficulty in carrying out the work of scavenging satisfactorily, but the substitution of proper pipe drains would remedy this.

The refuse for a time might still be conveyed to your depôts, but greater care must be taken, especially during warm and moist weather, to see that accumulations of night soil at the tips are properly covered with gaslime, and a sufficient depth of ashes placed over this.

The tenant of the land on which the refuse is deposited at Newbridge claims it for his own use, but at **Chapel Bridge** this valuable manure is wasted. Farmers will not cart it away for use on their lands, as in its present condition the refuse consists largely of "breeze" (large and small coke), tins, pots, pans, &c., and is quite unfit to be spread on the land.

I would suggest that the Council employ a man for a few months at Chapel Bridge to riddle ashes, the fine ash to be mixed with the night soil and lime; a most valuable manure would be thus formed. This should be offered for sale at a cheap rate, an attempt being also made to sell the larger ash, &c., for use again as fuel. By this means part of the most dangerous constituent of your refuse would be got rid of; but if at the end of three or six months it was found there was no sale for this artificial manure, the work could be stopped at once.

But at the same time, if the Council determine to continue our present pail system, the only safe method for the ultimate disposal of your refuse is by fire. Destructors are available for this purpose, and enable it to be accomplished with little or no nuisance and at a small cost. Destructors for refuse should certainly be looked upon as essential requirements in all well-regulated Districts. From the returns of 46 towns using 51 destructors I have obtained the following particulars:—

- (1). The populations vary from 10,000 to 517,000.
- (2). Rateable values vary from £33,000 to £3,000,000.
- (3). In 33 towns all the house refuse is burnt. The loads vary from 10 to 900 per day.

Out of 51 destructors 30 are in populous districts, or fairly so.

The number of cells vary from 2 to 44. The

results are generally satisfactory.

The distances of dwelling-houses from the destructors vary from within 50 feet to within 100 yards.

In only a very few have have complaints been

made.

In 32 cases waste heat is utilised for grinding mortar, working disinfectors, electric light plant, &c.

The practice of dispositing house refuse and night soil on land near populous Districts is a dangerous one, and it will be seen that means are now available to obviate this.

Having briefly sketched out to you the manner in which I think our pail system should be carried out, I will consider the next course feasible, viz., joining Risca in a water carriage system.

The Urban Council of Risca are, I believe, anxious to carry out an efficient sewerage scheme for their district.

It was suggested last year that the Abercarn Board should join them in this scheme. Committees were formed, and a deal of useful information obtained.

I would now ask your Sanitary Committee to appoint a certain number of members to again meet the Risca District Council, fully investigate the proposed plan, and report to the Abercarn Council. A well carried out water-carriage system would be an inestimable boon to the District, for on the efficiency with which refuse matter, and especially human excretal refuse is removed from towns, their health largely depends.

Cases of Enteric fever and other infectious diseases are continually occurring in our midst, and are in nearly every instance traced to drainage defects. To quote Dr. Parkes "It has been proved again and again that nothing is so costly in all ways as disease, and that nothing is so remunerative as the outlay that augments health, and in doing so augments the amount and value of the work done."

On the completion of Sanitary Works at Cardiff the death-rate fell from 33 to 22 per 1000 per annum.

Merthyr ,, 33 ,, 26 ,, ,, ,, ,, ,, Newport ,, 31 ,, 21 ,, ,, ,, ,, Brynmawr .. 27 .. 23 .. .. .. ..

Brynmawr ,, 27 ,, 23 ,, ,, (Report of Medical Officer of the Privy Council.)

And the death-rate from Enteric fever was reduced 50 per cent., showing in a remarkable manner the effect of carefully carried out Sanitary Works upon the public health.

The main sewer would run through your district to Risca, and receiving the smaller sewers and drains on its way.

The separate system of water carriage offers some advantages; in this, only sewage proper would be conveyed, the storm, surface, and subsoil water being excluded from the sewers and allowed to run into the river and canal as at present. The sewers proper would thus be smaller, and the expenses materially less. The ultimate destination of the sewage would be the flat meadow land below Pontymister. Its treatment there would have to be carefully considered. At present an elaborate system of purification need hardly be gone into.

A scheme of this sort would require the most careful consideration, every detail would have to be gone into, the probable cost estimated as accurately as possible, and the question of the most economical and satisfactory method of final treatment investigated with the utmost care.

# MAIN SEWER FOR THE WESTERN VALLEYS.

This question has been considered by Committees of members of the various Local Boards in the Western Valleys, and a scheme was presented by the Parliamentary Committee of the County Council to the Council, but looking at the matter from all points of view, the Sanitary Committee of the Council did not see their way clear to recommend the Council to undertake the responsibility of this or any other particular scheme, but thought it should be left to the Sanitary Authority of the several districts interested to carry out any scheme they think most desirable, the Council only insisting that their sewage and other refuse should no longer be discharged into the river, and that some effective plan of sewage disposal should be adopted, and the Sanitary Committee further thought, taking into consideration

- (1). The great cost—a rate of 5d. for fifty years.
- (2). Before the scheme had been in operation many years, some cheaper and better plan for the disposal of sewage might be discovered.
- (3). The discharge of so large a quantity of sewage near the mouth of the Usk would create a dangerous nuisance for miles.

That the scheme was hardly practicable.

The project thus fell into abeyance, and, I believe, has not been re-opened.

If this scheme was carried out, it would undoubtedly be the best, but the expense and difficulties seem enormous, and it is probable that Newport and other towns on the banks of the Severn Estuary would object to have enormous volumes of sewage poured into the sea in close proximity to them.

I would then ask you to thoroughly re-organise the present pail system, and appoint a Committee to meet the Risca Council to carefully consider the conjoint scheme.

If the Council finally do not see their way clear to unite with Risca, then the question of erecting destructors and cremating our house refuse should be carefully enquired into.

#### WATER SUPPLY.

The supply last year was fair, although care had to be exercised during June, July, and August to economise as much as possible, but there was nothing approaching the water famine that occurred in the summer of 1893. Cwmcarn was short of water for the greater part of the year, but this has been found by your Surveyor to be due to obstructions (stones, &c.) in the mains; and the inhabitants of some of the higher parts of your District: Cwmdows, Pentwynmawr, Chapel-of-Ease, have occasionally suffered for want of water. The Local Government Board sanctioned a loan of £12,000 for the construction of a new reservoir, mains, &c., but the scheme has fallen through, and a fresh one is in course of preparation by your engineer; this will, I hope, include such parts of your district as are increasing and are now without a proper supply within a reasonable distance, such as Pentwynmawr, Kendon, and parts near Aberbeeg.

I would, however, again call your attention to the great waste of water from the stand-pipes that still exist in different parts of the District. They are continually getting damaged, and often the water allowed to waste for many hours. If it happens there is a scarcity of water, two or three of these stand-pipes running to waste in one part of the District cause a serious diminution and want of water in another. stand-pipes should be done away with, and service-pipes laid on to each house (into the back kitchen preferably). This would greatly tend to promote cleanliness and prevent waste.

The present supply is supposed to be constant, but is too often intermittent, especially in the summer months, and when your new scheme is carried out I hope there will be an ample and constant supply for every part of the district.

#### SLAUGHTER-HOUSES.

These have been inspected systematically during the past year, and difficulty experienced in some cases in getting the Regulations as to white-liming, refuse removal, &c., observed. One or two of these are old and dilapidated, and from their structural defects and position hardly fit for use, but the difficulty at present is this, there is no Public Abattoir.

At Crumlin an old stable was used for some time for slaughtering, and plans for its conversion into a slaughter-house presented to the Board, but were not passed. Our Bye-Laws are now come into force in the District, and I think if the **Regulations** relating to slaughter-houses were printed in the form of a small pamphlet or bill, and a copy supplied to each slaughter-house, much good might accrue.

#### DAIRIES, COWSHEDS, &c.

Most of the cowsheds, &c., have been inspected, but there are a number in existence now unlicensed and unregistered.

I was unable to trace any outbreak of Infectious Disease (Enteric Fever, Scarlatina), to any milk supply during the year.

#### ISOLATION—DISINFECTION.

This question remains in abeyance. We have no means of isolation. The possession of a good four-roomed cottage, suitable for isolation, would be a great safeguard in case of an outbreak of Small Pox or other Epidemic. The cost of furnishing, and the expense of maintenance, would not be great.

No Disinfecting Apparatus (steam). Disinfectants (Chloride of Lime or Carbolic Acid), are supplied to each case of Infectious Disease, and in the majority of cases the house is fumigated with Sulphur.

Covered Sanitary Pails are now supplied to fever cases.

### ACTS, &c., IN FORCE.

# INFECTIOUS DISEASES NOTIFICATION ACT.

Bye Laws (which have only just come into force) for

(1) Prevention of Nuisances.

(2) New Streets and Buildings.

(3) Slaughter-houses.

(4) Offensive Trades.

(5) Dairies, Cowsheds and Milkshops Order, 1886. Regulations under.

In conclusion, Gentlemen, I would ask you to consider:—

- (1) The present method of Refuse Removal and Disposal, and the advisability of the Council undertaking the Scavenging.
- (2) The advisability of joining Risca in a complete Sewerage Scheme, or of urging on a Main Sewer.
- (3) The parts of the District that are at present badly drained.
- (4) Printing the Bye-Laws relating to Slaughter-houses, and also the Regulations under the Dairies, Cowsheds Order, each Slaughterman and Cowkeeper to be respectively supplied with a copy.
- (5) Printing of pamphlets containing simple directions on the Feeding and Care of Infants.
- (6) Adoption of the Infectious Diseases Notification Act, and 3rd Part Public Health Amendment Act, 1890.

I remain, Gentlemen,

Your Obedient Servant,

WALTER E. JAMES, M.R.C.S., L.R.C.P. (LOND.), Medical Officer of Health.



